PENGARUH TINGKAT PENGETAHUAN DAN SIKAP PERAWAT TERHADAP PENERAPAN STANDAR PROSEDUR OPERASIONAL (SPO) PEMASANGAN INFUS DI RS PKU MUHAMMADIYAH BANTUL

THE INFLUENCE OF THE KNOWLEDGE LEVEL AND NURSES ATTITUDES TOWARD IMPLEMENTATION OF STANDARD OPERATING PROCEDURES (SOP) OF INFUSION IN PKU MUHAMMADIYAH HOSPITAL BANTUL

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ABSTRAK

Tindakan paling banyak untuk pemasangan infus adalah di Instalasi Gawat darurat. Tindakan pemasangan infus lebih sering dilakukan oleh perawat dan harus sesuai dengan standart prosedur operasional (SPO).Terjadinya kejadian plebitis, bengkak, dan trauma akibat pemasangan infus yang berulang- ulang adalah akibat tindakan pemasangan infus yang tidak mengutamakan *patient safety*. Tujuan penelitian adalah mengetahui tingkat pengetahuan dan sikap perawat terhadap penerapan Standar Prosedur Operasional dalam pemasangan infus. Penelitian ini menggunakan penenlitian metode *deskriptif kuantitatif* dengan pendekatan *cross sectional.* Responden dari penelitian ini adalah perawat yang bekerja di IDG RS PKU Muhammadiyah Bantul. Data dikumpulkan dengan menggunakan kuesioner dan observasi. Alat analisis yang digunakan adalah univariat, bivariat dan multivariat. Hasil menunjukkan tingkat pengetahuan perawat sebagian besar dalam kategori baik (80,00%), sikap perawat sebagian besar mempunyai kategori baik (53,33%) dan penerapan SPO pemasangan infus sebagian besar mempunyai kategori telah melaksanakan (53,33%). Ada hubungan antara tingkat pengetahuan dan penerapan SPO pemasangan infus ($p<0,05$). Ada hubungan antara sikap dan penerapan SPO pemasangan infus ($p<0,05$). Besanya pengaruh tingkat pengetahuan dan sikap perawat terhadap penerapan SPO sebesar 53,4% (R square) sedangkan sisanya sebesar 46,6% dijelaskan oleh variabel-variabel lain. Kesimpulannya terdapat pengaruh antara pengetahuan dan sikap perawat terhadap penerapan standart prosedur operational (SPO) pemasangan infus di RS PKU Muhammadiyah Bantul. Sarannya adalah Rumah Sakit hendaknya menyediakan instrumen pemasangan infus sesuai ketentuan serta memperhatikan prinsip keselamatan dan kewaspadaan dalam penerapan SPO pemasangan infus.

Kata kunci: Tingkat pengetahuan, Sikap, SPO pemasangan infus

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ABSTRACT

Most of action for infusion in the emergency department. Action of infusion more frequently performed by nurses and should be in accordance with standard operating procedures (SOP). The occurrence of plebitis incident, swollen, and trauma of due to repeated infusion is result of actions that do not prioritize of the patient safety. The purpose of research is knowing influence the level of knowledge and attitudes of nurses toward the implementation of Standard Operating Procedures in infusion. This research used descriptive quantitative research methods with cross sectional. The respondent of it is nurses working in the emergency department of PKU Muhammadiyah Hospital Bantul. Data was collected using a questionnaires and observation. The analytical tool used are univariate, bivariate, and multivariate. Results is the level of knowledge most of nurses in good category (80,00%), the attitude of most of the nurses has a good category (53,33%) and the application of standard operating procedures infusion majority of categories has been implemented (53,33%). There is a relationship between the level of knowledge and the application of standard operating procedures (p<0,05). There is a relationship between the attitude and the application of standard operating procedures (p<0,05). The magnitude of the influence level of knowledge and attitudes of nurses toward the implementation of SOP for 53,4% (R Square) while the remaining 46,6% is explained by other variables. Conclusion is there is influence between knowledge and attitude toward the implementation of standard operating procedures of infusion in RS PKU Muhammadiyah Bantul. The suggestion is the hospital should be providing the instrument of infusion accordance with the principles of safety and alertness in the application of standard operating procedures of infusion.

Keyword: Level of Knowledge, Attitude, Implementation of Standard Operating Procedures of Infusion

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INTRODUCTION

Nursing services performed in an effort to elevate the degree of health, prevent disease, healing, recovery, and maintenance of health with the implementation of primary health care in an effort to allow each resident achieve the ability to live healthy and productive is done in accordance with the authority, responsibility and professional nursing ethics[1]. The main characteristic of nursing services based on science using the problem solving method that is the nursing process which includes assessment, nursing diagnoses, planning, implementation, and evaluation.

One of the most common invasive procedure performed in a hospital is infusion. Infusion as an intravenous therapy is one of the most frequently performed procedures in all hospitals in the world[2]. The role of nurses in the infusion, especially in task delegation, can act as *a care giver*, which they should have knowledge about the field of nursing practice related to assessment, planning, implementation, and evaluation of the infusion. Infusion instructed by the doctor but the nurse herself who responsible in charge of the administration of the therapy as well as maintaining the pasien[3]. The nurses role in the infusion not only for the administration of medication agents, but more broadly covers the installation of IV access tools, maintenance, monitoring, and the most important thing is prevention infeksi[4].

The involvement of nurses in the infusion has implications on responsibility in preventing complications plebitis and discomfort in patients, especially in terms of skills cannula aseptically and accurately, thereby reducing the risk of failure of the installation, but it also must be mastered on the treatment regimen. Therefore, the nurse must have a clinical competence of all aspects infus therapy[5].

Royal College of Nursing/RCN[6] provide standards

concerning the theory and practice of infusion therapy that must be mastered by nurses include: legal and professional aspects of infusion; anatomy physiology of vascular access; pharmacology of intravenous fluids and medications; Local and systemic complications; principles of infection control; equipment use infusion therapy; infusion procedures; maintenance infusion; prevention of complications; management of complications. With the knowledge of understanding it, the nurses are expected to have *critical thinking* in decision making with regard to his actions.

Various interventions or actions that should be taken to prevent the occurrence of nosocomial plebitis infection in patients will or is mounted infusion is a form of behavior. The behavior itself is affected by *predispoding* factors, *enabling* factors, and *reinforcing* factors. *Predisposing* factors which include knowledge, attitudes, traditions, and values. *Enabling* factor comprised of the availability of infrastructure, while *reinforcing* factors such as regulations, laws, attitudes and behaviors of others health workers[7]. If the behavior is based on the knowledge, awareness and a positive attitude then the behavior will be lasting[7]. The Lack of knowledge toward a particular object due to lack of the information obtained.

In addition to the knowledge about management, the most important to be possessed by the nurse is knowledgeable about the patient safety. This knowledge relates to how to prevent harm to the patient during treatment and care. One of the measures of *patient safety* in the management of intravenous infusion is taking action based on Standard Operating Procedures (SOP) that have been defined. Plebitis complications, swelling, and trauma as a result of the infusion repeatedly, is due to the infusion of action that does not prioritize *patient safety*. This causes the

patient to be harmed, because the time span of the patient's hospitalization will increase a long time[5].

Recommended things to do and not do with regard to infusion covering participate in education and training in infusion therapy, hand hygiene, the selection of the location of the vein, maintaining aseptic technique during catheter insertion, monitoring the installation of the infusion area, and replacement infusions and dressings. It is important for health care workers especially nurses to determine specific actions to prevent infection plebitis[8].

Based on the results of preliminary studies that researchers do in IGD of PKU Muhammadiyah hospital Bantul on December 4, 2012, the data that the researchers found from the Infection Prevention and Control Team (PPI) the Hospital in 2011 that the occurance plebitis of 0.6 % but after obtained latest data in 2013 from Infection Prevention and Control Team (PPI) PKU Muhammadiyah Hospital in Bantul obtained plebitis occurance of 2.3 %[9]. This figure is above the standards set by the Ministry of Health RI, which is 1.5 %[10].

In this study, indicators of knowledge which consists of 6 (six) levels, namely: to Know, Comprehension, Application, analysis, Synthesis, and Evaluation[7].

To the attitude use indicator consists of three basic components: (1) Belief (faith), the idea and concept of an object. (2) emotional life or emotional evaluation of an object, and (3) The tendency to act (trend to behave) . These three components together form a unified stance (total attitude)[7]. While SOP of infusions Installation are used by PKU Muhammadiyah Hospital of Bantul (2009)[11].

THE MATERIALS AND METHODS

The study design was *cross-sectional*, namely *Analytic quantitative* with *cross-sectional* approach where the data were

taken at the same time concerned with measuring instruments such as questionnaires and observation. This study was conducted in October 2013 at PKU Muhammadiyah Hospital in Bantul at PKU Muhammadiyah Hospital emergency department (IGD) room Bantul. The study population is the act of infusion were performed by a nurse on duty in the emergency department (IGD) room of PKU Muhammadiyah Hospital Bantul.

Instrument in the form of questionnaires and observation sheets distributed to survey respondents consisting of a number of alternative answers to questions that have been prepared. Before being used as a research instrument, the questions in the first questionnaire tested for validity and reliability. The validity test using the product moment correlation formula (Sugiyono[11]) while reliability test by looking at the Cronbach's Alpha value> 0.60[12]. The Validity test carried out on 30 nurses on duty in the outpatient room of PKU Muhammadiyah hospital Bantul.

In this study, researchers process data using a computer with the software *"Statistical Products and Services Solutions 20" for Windows* commonly abbreviated with SPSS 20 *for Windows*, while to analyze the data this study using logistic regression to analyze the effect that the level of knowledge and attitudes to the implementation of standards SOP.

RESULTS

The Validity and Reliability Test

The results of the validity test is conducted toward all items questions in this study suggests that there is some question items in each fall or invalid variable because the value of r count is smaller than r table (0.361), whereas the results of the reliability test shows that the Cronbach alpha value > 0.60 so that it can be said on the question items for each variable declared reliable (reliable).

Hypothesis Testing

Results of Univariate Analysis

The results showed that the level of nurses knowledge that in good category (80.00%) more than the poor category (20.0%). the nurses attitude most of them have good category (53.33%) followed by the excellent category (33.33%) and the last bad category (13.33%). The nurse attitude for very bad category is nothing. As for SPO application of infusion largely have been implementing category (53.33%) while it is not carrying out relatively a bit (46.67%).

Multivariate Analysis Results

The results showed that the value of *the Hosmer and Lemeshow statistic Goodness of fit* is 11.147 with a significant level of 0.084 whose value is above 0.05. Figures significant level >0.05 thus **Ho** is accepted. This means that the regression model proper for further analysis, because there is no real difference between the classification that predicted the observed classification. While the results of the regression coefficient of the variable level of knowledge suggests a positive coefficient of 1.331 with a probability of 0.011 ($p<0.05$). This implies that the level of knowledge has an influence toward the SOP implementation of infus installation. Attitude variabel showed positive coefficient value of 0.295 with a probability of 0.006 ($p< 0.05$). This implies that attitudes have an influence toward the SPO infusion implementation.

DISCUSSION

The nurses knowledge level

Based on Table 4.6, the nurses knowledge level in the IGD of PKU Muhammadiyah Hospital Bantul good category (80.00%) more than the poor category (20.0%). The results are appropriate with research about nurses' knowledge level of suction mucus/suction in ICU room of Prof. Dr. Margono Soekarjo Hospital Purwokerto mostly in the high category (68.2%) and least in the low category (4.5%)[13]. This suggests that most of the nurses have knowledge of high enough so it can take action in accordance

with the standard medical procedures.

If the level of knowledge associated with the sex of the respondents, 80.0% either category consists of 46.67% men and 33.33% women. While it's bad for the knowledge of 20.0 % comprised of males 6.67% and 13.33% women. These results can not be made a conclusion that the level of knowledge related to sex, if we look closely at the good knowledge level spread on male nurses and female as well as poor knowledge scattered on male and female nurses. This result is appropriate with the Wahyunah opinion[5] that the factors who affect the knowledge level that is the level of education, information, social culture, experience, socio economic and age, so that gender had no effect.

If the knowledge level associated with the education level of the respondents, both categories 80.0 % comprise of S1 6.67% and D3 73.33%. Meanwhile for poor knowledge 20.0% of all educated D3. When viewed in the level of poor knowledge that all educated D3 can be stated that the knowledge level related to education. However, the data education S1 is very small that is 1 person then it can not be concluded that the knowledge level related to education. One of the factors that affect toward the knowledge level is education, so if the majority of nurse education is quite high, the level of knowledge most in good categories is something reasonableness only[7].

If the knowledge level associated with the age of respondents, good category 80.0% consists of age approximately 30 years 20.0 % , age 30 to 35 years and 46.67% and the age over of 35 years 13.33%. Meanwhile for poor knowledge 20.0 % consists of age approximately 30 years 13.33 % and aged 30 to 35 years 6.67%. These results indicate that the knowledge level related to the age, the higher the of nurses age the higher also the knowledge of nurses. The age has plays a role in

acquiring knowledge because someone's memory is influenced by age[14]. Getting enough age, the level of maturity and strength of a person will be more mature in thinking and working. The older the age of a person's so that mental development processes improve, but at a certain age increasing development process is not as fast as when I was a teenager.

A nurse should ideally have basic knowledge about various theories related to infusion therapy. This will affect the behavior, especially on the principles relating to the execution and implementation of protocols for the prevention of complications. Nurses must have a insight knowledge about the principles of aseptic technique, stability, storage, labeling, interactions, and dosage calculation and the right equipment so as to provide safe infusion therapy to patients. Knowledge is one important aspect that must be owned by a nurse as it can affect certain skills[5]. As affirmed by RCN[6], said that a nurse who will do the installation or administration of infusion therapy should have the following knowledge: definition, purpose, and an indication of infusion therapy; anatomy physiology of vascular access; pharmacology of intravenous fluids and medications; Local and systemic complications; principle infection control; infusion therapy equipment use; infusion procedures; maintenance infusion; prevention of complications, and management of complications. This knowledge should be applied in behavior when nurses perform installation and maintenance infusion.

Most actions infusion in the IGD and IGD PKU Muhammadiyah Hospital Bantul organize emergency services continuously for 24 hours. Nurses who work in the IGD must a nurses have the knowledge and skills well to infusio. Knowledge is a Domain that very important for the formation of one's actions.

Knowledge is needed as a boost in empowering thought and encouragement attitudes and behaviors, so that it can be said that knowledge is the stimuli toward one's actions. A nurse can recall a previously material learned and explain properly about the object known, and can interpret the material correctly. Existing knowledge that makes a person has the ability to use materials that have been studied on the situation or actual condition.

Knowledge is the basis to do something or act in and related to experience and education. Very good knowledge might come to the application on the field so that the knowledge can be associated with the implementation of SPO infusion. Knowledge can be acquired through learning, with structured education and training[7]. Training is the process of helping the workforce to gain effectiveness in their current job or future through the development of habits of thought, action, skill, knowledge, and proper attitudes[15]. The results of the Machira G et al study [16] showed that the training through *the Pain Management Programme* (PMP) able to increase the knowledge and attitudes of nurses in Kenya. The research provides information about the knowledge and nurses attitudes in relation to optimal pain management. Pain is the most common factors of patients to seek help from medical staff and nurses spend most of the time in contact with the patient.

The nurses attitude

The nurse attitude in the IGD of PKU Muhammadiyah Hospital Bantul most have good category (53.33%) followed by the excellent category (33.33%) and the last bad category (13.33 %). The nurse attitude for very bad category is nothing.

According to psychological experts, attitude is a form of evaluation or feeling reaction. Person's attitude toward an object is feeling supported (*favorable*) or feelings of support (*unfavorable*) on the object. Nurses' attitudes

Infusion toward emerging from many different forms of assessment obtained from experience[17]. The nurses attitude is also a result of social learning environment, where there are fellow nurses who apply SPO more successful and easier then the farmers will also implement the SPO.

If the nurses attitude associated with the respondents sex the excellent category 33.0 % consists of 20.00% male and 13.33 % female. While it's good for nurses attitudes 53.33 % consisted of 33.33 % male and 20.00% female. the bad nurses attitude 13.33% all are women. These results indicate that there is a tendency attitude of male nurses better than women nurse, however, can not be concluded that nurses' attitudes related to the gender. This agrees with Robbin[18] stating there is no difference between men and women in problem solving, analytical skills, compete motivation and learning ability.

If the nurses attitude associated with the educational level respondent's are very well category 33.33% all educated D3. Meanwhile, for the nurses attitude good category 53.33% comprises of S1 6.67% and 46.67% D3, while the nurses attitude in poor categories 13.33% are all educated D3. When viewed in nurses attitude a bad attitude categories that all of nurses educated D3 tendency nurses attitude associated with education. However, the data graduation S1 is very a bit that is 1 person then it can not be concluded that nurses' attitudes related to education. Highly educated people will be more rational and creative also open to these various reform efforts, it also would be able to adjust to changes. The Nurses who have a higher education tend to be good compared to nurses with more low education[19].

If the nurses attitude associated with the age of respondents, excellent category 33.0% consists of approximately

30 years 13.33%, age 30 up to 35 years 13.33% and age over than 35 years 6.67%. Meanwhile, for the nurses attitude good categories 20.0% comprise of the age of approximately 30 years 13.33%, age 30 up to 35 years 33.33% and over than 35 years 6.67%. the nurses attitude on bad categories 13.3% comprised aged less than 30 years 6.67% and aged 30 up to 35 years 6.67%. These results indicate that nurses' attitudes related to age, the higher the age of nurses age the better also the nurses attitude. These results are in line with Siagian[20] stating that the age associated with maturity in doing the job and psychological maturity, so the nurses attitudes would be related to age.

The results of this study indicate that nurses' attitudes are very good category to have a good knowledge level (33.33%). While the nurses attitude of good category consists of nurses with a good level of knowledge of 46.67% and poor knowledge level 6.67%. the nurses attitudes Enough category consists of nurses have poor knowledge level of 13.33% (Appendix). These results may indicate that nurses' attitudes related to the level of knowledge. The higher the nurses' knowledge the better the attitude of nurses and vice versa, the worse the nurse's knowledge of the attitudes of nurses getting worse anyway. Lack of knowledge that will give negative impact to nurses, this can lead to poor service given. This result is appropriate with the Sadiman opinion[21] stating that knowledge would require confidence which in turn will provide the basis for further development and determine the attitude toward the object. Changes in individual attitudes influenced by nurses internal factors (knowledge and motivation) and external factors such as: the existence of policies, standards, procedures are also the environment in which the individual (Installation Intensive Care).

Application of SOP infusion

PKU Muhammadiyah Hospital Bantul is one of the private hospitals that already have the ISO 2001:2008 standard, one of the issues that once there is *a nursing error* occurrence. The hospital began to implement *patient safety* since 2006 and has been updated with patient safety training held on 13-15 October 2011. Implementation of *patient safety* one infusion in accordance with Standard Operating Procedures (SOP) in both the emergency room, hospitalization and other rooms. SOP itself is the procedure or steps that must be passed in a particular work process, which can be received by a responsible authority or to maintain a certain level of performance or certain conditions so that an activity can be completed effectively and efisien[22]. Application of SOP infusion in IGD PKU Muhammadiyah Hospital Bantul mostly have implement category the SOP is 73.33% and the category of not fulfilling the SOP was 26.67%. Application of SOP infusion for the excellent category and less nothing.

When viewed from the S O Papplication of a good infusion nurse in the IGD PKU Muhammadiyah Hospital Bantul in accordance with the advice of the government on improving the quality of nursing care. If the infusion installation is not in accordance with the SOP may result in phlebitis occurrence, swelling, and trauma of infusion repeated so that the patient will be harmed as a result a lot of the time span of hospitalization of patients will get be longer.

Based on the Department of Health RI policy[22], that the program of nursing care quality improvement conducted through the study activities of nursing documentation, patient perception toward the quality of nursing care and nursing actions based on the evaluation of the implementation base on SOP.

Infusion preparation that is often overlooked by nurses ie in preparing perlak, bent and plastic

bags, sterile gauze, bandage scissors, clean towels, betadine and alcohol, antibiotic ointment, sterile gloves, and a kloril solution of 0.5%. Infusion implementation is often not noticed by the nurse that is in communication with the patient or family, put perlak under inserti area, put gauze that has been given ointment and set up the drip. Infusion actions can be done by nurses after the delegation of authority from the physician who responsible treating the patient. Infusion actions more frequently performed by nurses and the infusion should be in accordance with the SOP and the absence of appropriate standards can result in life threatening infections and patients themselves.

If the application SOP infusion associated with respondents' gender as a category implement the SOP as many as 73.33% consists of 40.00% men and 33.33% women. Meanwhile, for the application of infusion SOP category does not carry SOP as much as 26.67% consisted of 13.34 % men and 13.33 % women. Based on these results indicate that there is no tendency implementation infusion SOP men better than women or vice versa women better than men. Thus it can be concluded that the application of SOP infusion was not associated with gender. Robbin[18] states there is no difference between men and women in problem solving, analytical skills, motivation and ability to learn to compete. This suggests that gender does not affect the application of infusion SOP.

Based on the application of SOP infusion associated with education level of respondents, the categories carry SOP as much as 73.33% consists of 66.67% D3 and 6.66 % S1 graduates. Meanwhile, for the category does not carry SPO as much as 26.67 % all of them D3 graduates. These results do not indicate that the application of SPO infusion D3 graduates better than S1 graduates. These results differ than Notoadmodjo opinion[7] that stating one of the factors that affect

the level of knowledge is education. This differences could be due to the number sample of nurses educated S1 only one person. SOP infusion application will closely related to the nurses knowledge toward the SOP, thus indirectly infusion SOP application relates to education.

Based on the data obtained that the majority of IGD nurses have applied the infusion well. IGD nurses act according to the steps or operational procedures applicable infusion performing in Hospital infusion in patients. Other causes which may explain why most of the actions performed by the IGD nurses well are age. Application of SOP infusion with respondents age, category carry SOP as much as 73.33% approximately 30 years 20.00 % of age 30 up to 35 years 40.00% and the age over than 35 years 13.33%. Meanwhile, for the application of SOP infusion category does not carry SOP as much as 26.67% are younger than 30 years 13.33% and aged 30 up to 35 years 13.34%. These results may indicate that the SOP application infusion associated with age, the older the nurse the better the application SOP installation. Robbins[18] states there is a relationship between age and performance, where there is a widespread belief that the productivity slump by increasing a person's age. SOP application of infusion can be interpreted as a performance of a nurse so that in this study it can be said that after the effect on performance. As with Gibson[23], stating that the growing age of a person will be growing maturity and absorb more information that will affect his performance.

The results of this study showed that nurses with implementing SOP infusion implementing category all have a good level of knowledge. While the nurse with the application of infusion SOP 26.67% consis of nurses with good knowledge category 6.67% and poor knowledge 20.00%. These results may indicate that the

nurses'knowledge level related to the application of SOP infusion, as indicated by the probability value of 0.011 or p< 0.05. The higher the nurses' knowledge the better the application of SOP infusion, and vice versa the worse nurses' knowledge it is getting worse also by the application SOP infusion.

The results of this study also showed that nurses with implementing SOP infusion executing category consists of nurses with a very good attitude to 33.33% and good attitude 40.00%. While the nurse with SOP infusion application does not execute category consists of nurses with a good attitude 13.33% and enough attitude 13.33%. These results may indicate that nurses' attitudes have a relationship with the application of SOP infusion, which is indicated with a probability value of 0.006 or p < 0.05. The better the attitude of nurses the better the application of SOP infusion, and vice versa the less the nurses attitude, the more bad anyway application SOP infusion.

Application of an appropriate infusion with SOP can be increased through training. The training is part of an educational process that aims to improve the ability or special skill[7]. Exercise is a potential refinement of existing workers by repeating a certain activity. Both training and habituation occurs primarily in the biological level, but if further developed in the second stage of psychological symptoms that would make the process of consciousness as a process that is unconscious biological called automatism process. The process of generating action unconsciously, fast and precise. Training is needed as one of the activities intended to improve and develop the attitudes, behaviors, skills and knowledge of staff as the desired agency concerned[24].

Enabling factors is one of the factors that may affect the implementation of SOP infusion. Supporting factor is the availability of resources or health care facilities and services to achieve it.

Facility is a means to accelerate the implementation of the ease of function. The Departement of Health RI[22] stated that in order to be able to service implementation in accordance with the standards must be supported knowledge, abilities and skills of adequate human resources. Besides, it must also be supported with facilities and adequate of hospital facilities that care be qualified and have a major impact on the image of hospital services, which in turn can satisfy the public. If the hospital is providing services in accordance with the knowledge and standards that have been set, then the health service had to be management accountability for.

Knowledge, nurse attitude and application of SOP infusion

Based on the coefficient test, logistic regression analysis the level of knowledge has a significant influence toward the implementation of SOP infusion (probability = 0.011 or p< 0.05). Regression coefficient value on nurses' attitudes (1.331) is positive so that when the level of knowledge increases, the application of infusion SOP will also increase, however when the knowledge level decreased so the application of SOP infusion will also decrease. There are six levels of knowledge, ie; know, understanding, application, analysis, synthesis and evaluation. Knowledge who the respondents possess can be included in one of the appropriate level of knowledge questions on knowledge variable rate of action procedures[7]. So, good knowledge is very likely to be up on the application of knowledge in the field that may be associated with the level of compliance following the procedure of action. Knowledge can be obtained through a learning process, in a structured education and training. This is consistent with the theory expressed by Keraf[25] that generally someone knowledge is influenced by life experiences (true knowledge), education level (the higher the education the higher the person's knowledge), physical

health, especially the health of the senses, age (associated with comprehension and memory of the material), and the mass media/book (as information resources). Bird and Wallis[26] research results show the nurses had a good knowledge base can work well but in a less rapid clinical decision making. Nurses who have experience tends to be faster in the clinical decision-making. The results showed there was a weak correlation between knowledge and performance.

Based on logistic regression analysis coefficient test, the nurses attitude have a significant influence on the implementation of SOP infusion (probability = 0.006 or $p < 0.05$). Regression coefficient on nurses' attitudes (0.295) is positive so that when the attitude of nurses increases, the application of SOP infusion will also increase, but if the nurses attitude decreases the application SOP infusion will also decrease. Professional nurses attitude can be seen from its ability to implement the characteristics of a professional attitude that is independent in thought, humility, courage, perseverance, empathy, even-handed, and the exploration of the mind and feeling[27]. Attitude is a mental and neural state of readiness are regulated through a dynamic experience influence or directed toward toward individual response to all objects and situations related to it. Attitude change can be caused by the presence of reward and punishment in which individuals associate the reaction is accompanied by rewards and punishments, contains a stimulus expectancy for individuals that may be changes in the attitudes and prejudices containing stimulus for individuals who change from the begining attitudes[28]. Nurses as spearhead personnel and direct contact with the patient for 24 hours, must be able to actualize themselves physically, emotionally, and spiritually to treat people with critical illnesses. Nursing care Particularly in emergency department need at the ability to

adjust the critical situation with speed and accuracy are not always required in other nursing situations. Nurses should be able to take a correct attitude with respect to the condition of the patient, so with that infusion in accordance with the SOP application.

The results of this study also indicate that there are significant levels of knowledge and nurses attitudes towards the implementation of SOP infusion. The magnitude of the effect of the level of knowledge and attitudes of nurses towards the implementation of the SOP of 53.4 % (R square) while the remaining 46.6% is explained by other variables than the independent variables used in the study. Boredom or frustration factor to the existing system or the presence of less variation of work resulted in the decrease produktivity[18]. Nurses who work in the IGD is continually not automatically increase awareness to obey for increased in terms of motivation, knowledge, attitudes and good perceptions toward both the action procedure. Besides that working experience is one indicator of the level of experience and influence allertness. Application of SOP infusion in the IGD included in good categories this case there are senior nurses are willing to transfer the positive values in providing nursing care to the patients to new nurses, especially in the infusion installation. Besides that appreciation and prosperity of nurses perceived less influence on the implementation of SOP infusion.

SOP itself is the procedure or steps that are standardized and that must be passed to complete a particular work process. The existence of this SOP nurses can maintain the consistency and level of performance of officers or teams within an organization or unit, in order to be clear about the roles and functions of each position in the organization, clarify the flow of tasks, authority and responsibilities of relevant

personnel, to protect the organization and the staff of the mall practice or other clerical error and to avoid failures/errors, doubts, duplication and inefficiency. Application of SOP infusion not only protects the patient but also protect nurses from fault or her own safety. If the nurse has met the SOP infusion in case of unexpected occurred then the nurse can not simply be blamed.

CONCLUSION

The Nurses Knowledge Influence Toward Implementation Of Standard Operating Procedures (SOP) Of Infusion In PKU Muhammadiyah Hospital Bantul.

Nurses' attitudes toward the implementation of standard operational procedures (SOP) infusion at PKU Muhammadiyah Hospital Bantul.

Knowledge and attitudes of nurses towards the implementation of standard operational procedures (SOP) infusion at PKU Muhammadiyah Hospital Bantul.

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